

Grevillea,

A QUARTERLY RECORD OF CRYPTOGAMIC BOTANY
AND ITS LITERATURE.

NOTICES OF NORTH AMERICAN FUNGI.

By the REV. M. J. BERKELEY, M.A., F.L.S.

(Continued from Vol. III., Page 52.)

845. **Hypoxyylon concurrens.** *B. & C.*—Peritheciis minutis confluentibus sursum tantum denudatis minutissime granulatis; ostiolo minuto, papillæformi.

Car. Inf. No. 2258.

Perithecia connate, forming a thin black uniform stratum, very minutely granulated, the upper part only exposed; ostiola minute, papillæform; sporidia shortly cymbæform uninucleate.

846. **Hypoxyylon Beaumontii.** *B. & C.*—Peritheciis globosis conatis; ostiolo distincto papillæformi; sporidiis oblongo-ellipticis uniseptatis.

Alabama, Beaumont. No. 4617, 4857.

Perithecia rather small at first, slightly brown, then black, smooth, with a distinct papillæform ostiolum; asci linear; sporidia uniseriate, oblongo-elliptic, .0004 long, uniseptate.

* **Hypoxyylon serpens.** *P.*—Car. Inf. No. 1936. Ravenel. No. 1749. Alabama, Beaumont. No. 4868.

* **Hypoxyylon coprophilum.** *Tr.*—On cow dung. Car. Sup. No. 464.

847. **Hypoxyylon equinum.** *B. & Rav.*—Peritheciis e mycelio albo oriundis ostiolis nigris papillæformibus; sporidiis breviter cymbæformibus.

On horse dung. Car. Inf. Ravenel. No. 710.

Perithecia springing from a thin effused white mycelium; ostiola papillæform, black; sporidia shortly cymbæform, .0006 long.

848. **Hypoxyylon nudicolle.** *B. & C.*—Peritheciis conatis materie umbrina tectis; ostiolis prominentibus nigris; sporidiis oblongis uniseptatis.

On pine wood. Car. Inf. No. 3275.

Forming a continuous or slightly interrupted umber brown stratum; ostiola black, papillæform; perithecia crowded, covered

with a brownish matter; asci linear; sporidia uniseriate; sporidia oblong, narrow, uniseptate.

* **Hypoxylon botryosum.** *Fr.*—On *Nyssa*. Carolina. No. 3276.

849. **Hypoxylon rhyodes.** *B. & C.*—Linear; peritheciis congestis minutis albo-pulverulentis; sporidiis allantoideis.

On oak wood. Pennsylvania, Michener. No. 4386.

Growing in lines following the grain of the wood; perithecia minute, connate, covered with white meal; sporidia minute, sausage-shaped.

850. **Hypoxylon erinaceum.** *B. & Rav.*—Peritheciis ovatis connatis pulverulentis, collo elongato; sporidiis clavatis.

On *Liquidambar*. Car. Inf. Ravenel. No. 1367.

Perithecia ovate, pulverulent, with an elongated often curved neck; sporidia clavate, much attenuated below. A very curious species.

* **Hypoxylon ustulatum.** *Bull.*—White Mountains. New Hampshire, Tuckerman. *Rav.* No. 1720. Car. Sup. No. 386, 441, 597. Car. Inf. Ravenel.

* **Hypoxylon discretum.** *Schwein.*—On apple branches. Car. Inf. No. 3860. On *Cercis*. Alabama, Peters. No. 4554. On *Magnolia glauca*. Car. Inf. Ravenel. No. 1338.

Sporidia uniseriate, broadly elliptic, .00057 long; border gelatinous.

851. **Hypoxylon Broomeianum.** *B. & C.*—Crassum fuscum marginatum; ostiolis punctatum; stromate fusco; peritheciis ostiolo excepto abditis; sporidiis ellipticis.

On rotten logs. Car. Inf. No. 1894.

Irregular, brown, about $1\frac{1}{2}$ inch across, with a raised obtuse margin, about $\frac{1}{3}$ inch thick, brownish; surface quite even, with the exception of the punctiform ostiola; asci linear; sporidia uniseriate, elliptic.

* **Hypoxylon nummularium** *D.C.*—On *Acer rubrum*, *Quercus falcata*, *Platanus*. Car. Inf. No. 1437, 1438, 1496, 1554, 1887, 2964. Ravenel. No. 926.

* **Diatrype quadrata.** *Schwein.*—On *Rhus copallina*. Car. Inf. No. 3744. Ravenel. No. 1793. On *Prunus*. No. 1917. Ravenel. No. 635. On *Ulmus Americana*. No. 1559. On *Liquidambar*. No. 1559. Car. Inf. Ravenel. No. 1559. On *Acer rubrum*. Pennsylvania, Michener. No. 4351.

Sporidia uniseptate, sometimes contracted at the septum, .00063-.0005 long. Sent out as *Sph. obesa*, *B. & C.*

* **Diatrype punctulata.** *B. & Rav.*—Latissime effusum nigrum ostiolis punctiformibus depressis.

On dead trunks of oak.

Spreading for many inches, black, punctated, with the minute depressed ostiola.

* **Diatrype stigma.** *Fr.*—On dead branches. Car. Sup. No. 123, 342, 848, 929. Car. Inf. No. 1172, 1507, 1624, 2321, 2409. Ravenel. No. 1573, 1693, 1780. Pennsylvania, Michener. No. 3580, 3965, 4245.

The fruit varies a little in size. In No. 1780 the sporidia are scarcely curved, but I can see no external difference. In No. 2409 they are just intermediate.

* **Diatrype platystoma.** *Schwein.*—On dead branches. Car. Sup. No. 141. Car. Inf. No. 2096. New York, Sartwell. On *Hamamelis*. No. 2626. Pennsylvania, Michener. On *Acer rubrum*. No. 6347.

* **Diatrype atropunctata.** *Schwein.*—On dead branches. Car. Sup. No. 128. Car. Inf. No. 2507. Ohio.

Sporidia dark, subelliptic, .00114 long.

* **Diatrype clypeus.** *Schwein.*—On dead oak. Car. Inf. No. 2471. Sporidia dark, subelliptic.

851 (bis). **Diatrype grandinea.** *B. & R.*—Late decorticans transversim rimosa, ostioli frequentissimis aspera; stromate subrufo; sporidiis fuscis subellipticis.

On oak. Car. Inf. Ravenel. No. 1572.

Spreading for many inches, cracked transversely; stroma somewhat rufous, rough, with crowded ostiola; asci clavate; sporidia dark, subelliptic.

* **Diatrype disciformis.** *Fr.*—Car. Sup. No. 42, 715, 810, 817. 847, 938. Alabama, Peters. No. 5215. Pennsylvania, Michener, No. 4406.

Var. **Virescens.** Alabama, Peters. No. 6085. Sporidia sausage-shaped, .0004 long. Cotoosa Springs, Georgia. Ravenel. No. 1742. Vermont, J. D. Russell. No. 5885.

* **Diatrype microplaca.** *B. & C.* Journ. Linn. Soc. x. p. 386.—Car. Inf. No. 2007. On *Laurus Sassafras*. Ravenel. No. 752. Cuba.

852. **Diatrype hypophlæa.** *B. & Rav.*—Suborbicularis tenuis ostioliis prominulis exasperata; sporidiis oblongis nec allantoideis.

On dead limbs of *Magnolia glauca*. Car. Inf. Ravenel. No. 1710, 1799.

Forming thin suborbicular patches, which spring from beneath the cuticle, rough with the scattered ostiola; sporidia oblong, in a single row, not sausage-shaped.

* **Diatrype undulata.** *Fr.*—New England, Sprague. No. 5849.

* **Diatrype verrucæformis.** *Fr.*—Car. Sup. No. 59, 3433, 3439. Car. Inf. No. 1488, 1585, 2198, 3690, 4926, 4943. Ravenel. No. 1431. New England, Murray. No. 6326.

* **Diatrype quercina.** *Tul.*—Car. Sup. No. 520. Alabama, Peters. No. 4005.

* **Diatrype Duriæi.** *Mont.*—Car. Inf. No. 2491. New Jersey. No. 4703. Connecticut, C. Wright. No. 5643.

Sporidia eight in each ascus, .0006 long, sausage-shaped.

* **Diatrype Smilacicola.** *Schwein.*—On *Smilax rotundifolia*. Pennsylvania, Michener. No. 3540. Car. Inf. No. 3837.

Sporidia sausage-shaped.

* **Diatrype Cephalanthi.** *Schwein.*—Alabama, Beaumont. No. 4663.

Sporidia numerous, sausage-shaped.

853. **Diatrype asterostoma.** *B. & C.*—Pustulis elevatis; ostiolis stellatis; stromate albo; sporidiis allantoideis majoribus octonis.

On fallen branches. Car. Inf. No. 2203.

Pustules raised; ostiola stellate; stroma white; sporidia rather large, sausage-shaped, eight in each ascus.

854. **Diatrype plagia.** *B. & C.*—Pustulis transversim erumpentibus; ostiolis substellatis; stromate parvo fusco; sporidiis octonis allantoideis.

On *Liriodendron*. Car. Inf. No. 212.

Bursting through the bark transversely; ostiola substellate; stroma brown, scanty; asci clavate; sporidia eight in each ascus, sausage-shaped.

* **Diatrype aspera.** *Fr.*—On *Alnus serrulata*. Pennsylvania, Michener. No. 3505.

* **Diatrype viticola.** *Schwein.*—Car. Inf. No. 4975. Sporidia oblong, elliptic, uniseptate, constricted slightly at the septum, .0006 long.

854. **Diatrype carpinigera.** *B. & C.*—Pustulis parvis nigris; peritheciis abditis; sporidiis oblongis uniseptatis.

On hornbeam. Pennsylvania, Michener. No. 4388.

Pustules small, black; perithecia hidden; sporidia oblong, uniseptate, .0006-.00057 long.

855. **Diatrype sphenammina.** *B. & C.*—Pustulis longitudinaliter erumpentibus; ostiolis brevibus cylindricis; ascis clavatis; sporidiis uniseriatis oblongis angustis hyalinis.

On *Acer rubrum*. Pennsylvania, Michener. No. 4221.

Pustules splitting the bark longitudinally, and overtopped by its fragments; ostiola short, cylindrical; asci clavate; sporidia uniseriate, oblong, narrow, hyaline.

* **Diatrype corniculata.** *Fr.*—On dead limbs of *Fraxinus*. Santee Canal, Ravenel. No. 1836. On oak. No. 1715.

* **Diatrype Vitis.** *Schwein.*—Car. Inf. No. 32, 30.

* **Diatrype hystrix.** *Tode.*—On *Benzoin odorifera*. Pennsylvania, Michener. No. 4329.

* **Diatrype ferruginea.** *Fr.*—On oak. Car. Inf. No. 1078. Pennsylvania, Michener. No. 3969. On *Populus tremelloides*.

856. **Diatrype subfulva.** *B. & C.*—Pustulis parvis apice fulvo-pulverulentis; ostioliis nigris pertusis demum emergentibus; sporidiis allantoideis plurimis.

On *Nyssa*. *Car. Inf.* No. 4929.

Pustules small, covered above with tawny meal; ostiola at length emergent, black, pierced; asci clavate, with long pedicels; sporidia numerous in each ascus, sausage-shaped, .0004 long.

* **Diatrype strumella.** *Fr.*—On gooseberry. Mountains of New York. No. 4499.

Sporidia fusiform, triseptate, .0005 long.

857. **Diatrype Titan.** *B. & Rav.*—Pustulis irregularibus ex ostioliis emergentibus rugosis subtiliter granulatis; sporidiis maximis 6-septatis.

On bark of hornbeam. *Car. Inf.* Ravenel. No. 1552.

Pustules irregular, black, rough with the protruding ostiola minutely granulated; sporidia fusiform, obtuse at either end, dark with about 6-septa, .004 long.

* **Eutypa lata.** *Tul.*—*Car. Sup.* No. 626, 819, 828. *Car. Inf.* No. 1896, 1916, 1904, 4946. *Ravenel.* No. 1543, 1357. *Virginian Mountains.* No. 3328, 3365. *Pennsylvania, Michener.* No. 4128.

* **Eutypa leioplaca.** *Fr.*—*Car. Inf.* No. 1475.

* **Eutypa milliaria.** *Fr.*—*Pennsylvania, Michener.* No. 4166. *Sporidia* .0003 long, sausage-shaped.

* **Eutypa limæformis.** *Schwein.*—On oak. *Car. Sup.* No. 921. On *Liquidambar.* No. 836. *Cotoosa Springs, Georgia.* *Ravenel.* No. 1737. *Ohio.*

858. **Eutypa subpyramidata.** *B. & C.*—Effusa; peritheciis nigerrimis subpyramidatis; sporidiis biconicis elongatis.

On oak. *Car. Sup.* No. 741.

Effused, perithecia of a somewhat pyramidal shape, forming a rasp-like stratum; asci lanceolate, much attenuated below; sporidia biconical, each division much attenuated.

* **Eutypa scabriseta.** *Schwein.*—*Car. Inf.* *Ravenel.* No. 770. *Sporidia* sausage-shaped, .0002 long.

* **Melogramma gastrinum.** *Tul.*—On oak. *Car. Inf.* *Ravenel.* No. 1365. *Cotoosa Springs, Georgia.* No. 1736.

* **Melogramma gyrosum.** *Tul.*—*Car. Sup.* No. 55, 238, 462. 713. *Car. Inf.* On *Liquidambar.* *Ravenel.*

* **Melogramma quercuum.** *Schwein.*—*Car. Sup.* No. 99, 188, *Car. Inf.* No. 188, 1169, 1280, 1353, 3865. *Ravenel.* No. 1583, 1787. *New York, Sartwell.* No. 1858, 3070.

There are also many numbers on various plants with similar sporidia, which have been distributed as *Sphaeria mutila*.

* **Melogramma Meliæ.** *Schwein.*—Car. Inf. No. 2679, 1615. Ravenel. No. 597, 1811.

* **Melogramma Calycanthi.** *Schwein.*—Car. Inf. No. 3704.

* **Melogramma rhizogenum.** *B. Hook Lond. Journ.* 1845, p. 312.

On *Gleditschia.* Car. Sup. No. 1788.

Sporidia elliptic.

* **Melogramma ambiguum.** *Schwein.*—On *Rhus copallina.* Car. Inf. No. 1132, 2770. Ravenel. No. 939, 1788, 1791. On *Rhus radicans.* No. 157.

Sporidia hyaline, cymbæform, .0015 long.

859. **Melogramma horizontale.** *B. & C.*—Transversim erumpens; peritheciis subtiliter pulverulentis; ascis clavatis amplis; sporidiis fusiformibus hyalinis.

On *Gossypium.* Car. Inf. No. 1892. Ravenel. No. 588.

Bursting the bark transversely; perithecia minutely pulverulent; asci large, clavate; sporidia hyaline fusiform.

* **Melogramma Gleditschiæ.** *Schwein.*—Pennsylvania, Michener. No. 3943.

Very distinct from the *M. rhizogenum.*

* **Melogramma Hibisci.** *Schwein.*—Car. Inf. No. 1486. On *Hibiscus Syriacus.*

* **Melogramma Van Vleckii.** *Schwein.*—On *Bignonia radicans.* Pennsylvania, Michener. No. 6009.

Sporidia narrow, fusiform, hyaline, .0006 long.

Schweinitz' original specimen is probably the stylosporous state.

860. **Melogramma graphideum.** *B. & Rav.*—Breve graphideum cortice marginatum; sporidiis breviter fusiformibus hyalinis.

On *Myrica cerifera.*

Looks at first sight like a Lichen, as the strata are of various shapes, triangular, sinuated, &c., and surrounded by the rigid border of the bark; sporidia shortly fusiform, hyaline, .0008 long.

There are other allied forms in the collection. On *Cratægus cordata*, Pennsylvania, No. 3509, with cymbæform spōridia, .0008 long; on *Cercis Canadensis*, No. 795, Car. Sup., with similar sporidia; on *Cyrilla*, Car. Inf., No. 2189, and several which seem externally distinct, but without fruit, especially Car. Inf., No. 1139, on *Magnolia glauca.*

861. **Melogramma dichænoides.** *B. & C.*—Maculis ostiolis conicis rugosis exasperatis; sporidiis oblongis obtusis uniseptatis.

On oak. Alabama, Beaumont. No. 4662.

Looks at first sight like a *Dichæna*; spots bursting out transversely, but generally orbicular, very rough with the conical rugose pulverulent ostiola; asci clavate; sporidia hyaline in one or sometimes two rows, oblong, sometimes narrower below, obtuse, .001 long.

862. **Melogramma subaquilum.** *B. & C.*—Peritheciis paucis

longitudinaliter erumpentibus; ascis clavatis; sporidiis hyalinis uniseptatis angustis.

On *Acer striatum*. Massachusetts. No. 3405.

Perithecia few, bursting through the bark longitudinally; asci clavate; sporidia narrow, uniseptate, constricted more or less at the septum, sometimes almost biconical, .00083 long.

* **Melogramma insidens**. *Schwein.*—On ash. No. 4394. Pennsylvania, Michener. No. 4353.

Sporidia oblong, in one or two rows uniseptate, .0003 long.

Car. Inf., No. 1542, 2960, *Sphaeria collematoides*, B. & C., scarcely differs, except in the stratum being more pulvinate. *Sphaeria Gallæ*, *Schwein.*, is a *Sphaeropsis*.

863. **Melogramma Spraguei**. B. & C.—Massa undulata pulverulenta; ascis linearibus; sporidiis clavatis triseptatis verticilliter devisis.

On *Pinus strobus*. Massachusetts, C. J. Sprague.

Undulated, pulverulent, looking like the work of some burrowing larva; perithecia entirely concealed; asci linear; sporidia shortly clavate, with three horizontal and a few vertical septa.

* **Valsa prunastri**. *Fr.*—On *Cerasus*. Car. Inf. Ravenel. No. 1271.

* **Valsa stellulata**. *Fr.*—Car. Inf. No. 2277. Ravenel. No. 547, 583, 584, 615, 1341, 1343, 1430, 1453, 1792. Pennsylvania, Michener. No. 3427, 4119, 4176, 4224, 4391, 4412. Texas, C. Wright. No. 3900. New Jersey. No. 4678, 4693. Ohio. No. 5884. To these might be added fifty more numbers, many of which have been sent out as *Sph. tetraploa*.

* **Valsa Toxici**. *Schwein.*—On *Rhus radicans*. Car. Inf. Ravenel. No. 1424.

* **Valsa anomia**. *Schwein.*—On *Robinia*. Virginian Mountains. No. 3345.

In the Schweinitzian specimen the sporidia are sausage-shaped, .0004-.0003 long. In the Virginian we have the stylospores fusiform or slightly curved and obtuse, uniseptate, .0013 long, with a long slender pedicel.

* **Valsa haustellata**. *Fr.*—On *Alnus serrulata*. Car. Inf. Ravenel. No. 1663, 1764. On *Ostrya virginica*. No. 1805. Santee Swamp. No. 1815.

* **Valsa Leaiana**. B.—Hook. Lond. Journ., 1845, p. 311.

On hornbeam. Car. Inf. Ravenel. No. 1364.

Sporidia sausage-shaped. In *Sphaeria carpini* linear oblong, 3-septate.

* **Valsa fibrosa**. *Fr.*—Mountains of New York. No. 4467.

Sporidia oblong, elliptic, uniseptate, at length fenestrate, .0006 long.

* **Valsa Notarisii.** *Mont. & Dur.*—On *Robinia*. Car. Sup. No. 122. On *Gleditschia*. No. 83. Car. Inf. No. 2594. On oak.

Sporidia uniseptate, constricted at the septum, obtuse at either end, or apiculate.

* **Valsa nivea.** *Fr.*—On *Poplar*. Pennsylvania, Michener. No. 4248, 5890.

* **Valsa leucostoma.** *Fr.*—Car. Sup. No. 25, 36, 193. Car. Inf. Ravenel. No. 1590, 1591. Pennsylvania, Michener. No. 4343, 6004. New York. No. 1796.

* **Valsa angulata.** *Fr.*—Car. Sup. No. 237. On *Ilex opaca*.

* **Valsa dissepta.** *Fr.*—On *Salix*. Car. Inf. No. 3798. On *Amorpha fruticosa*. Car. Inf. Ravenel. No. 1219.

864. **Valsa munda.** *B. & C.*—Subcuticularis disco parvo albocincto; ascis lanceolatis, sporidiis allantodeis.

On smooth yellow branches of *Cornus*. Alabama, Peters. No. 5196.

Pustules completely covered by the bark, which is blackened over them, or appears black by transparence, the disc alone, which is bordered with white, being free; asci lanceolate; sporidia sausage-shaped.

865. **Valsa Pennsylvanica.** *B. & C.*—Transversim erumpens; peritheciis incisis; sporidiis oblongis triseptatis.

On *Cerasus pennsylvanica*. Mountains of New York. No. 4434.

Bursting transversely; perithecia in the centre of a facette; sporidia narrow, oblong, sometimes wide at one end, sometimes slightly curved, triseptate, .001 long.

866. **Valsa glyptica.** *B. & Currey.*—Epidermide tecta nigrocincta; sporidiis fusiformibus uniseptatis.

On willow. Car. Inf. No. 3011.

Quite covered by the bark, which is merely pierced by the ostiola, surrounded more or less evidently by a black line; sporidia fusiform, sometimes sigmoid, uniseptate, .0018-.0022 long.

* **Valsa colliculus.** *Wormsk.*—On pine. New York, Sartwell. No. 3449.

867. **Valsa orbicula.** *B. & C.*—Minuta orbicularis nigro-cincta; ostiola albo-cincto, ascis lanceolatis, sporidiis allantodeis.

On willow. Car. Inf. No. 3404.

Minute, orbicular, showing the subjacent perithecia by transparence, but not blackened, surrounded by a black line; asci lanceolate; sporidia sausage-shaped, .0004 long.

* **Valsa subscripta.** *Fr.*—On *Robinia*. Car. Inf. No. 3291. Sporidia sausage-shaped; asci minute.

* **Valsa coronata.** *Fr.*—On *Castanea*. Virginian Mountains. No. 3351.

* **Valsa leiphæmia.** *Fr.*—On fallen logs of oak. Car. Inf. Ravenel. No. 1580. Pennsylvania, Michener. No. 4137.

868. **Valsa leiphæmioides.** *B. & C.*—Pustulis subcorticalibus, ostiolis congestis tandem expositis; pulvere niveo intermixtis, sporidiis allantoides.

On oak. Car. Inf. No. 2505. New England, Sprague. No. 5415.

Pustules, when the cuticle is stripped off, covered by the brown bark, the ostiola only exposed and mixed with white matter; sporidia sausage-shaped, $\cdot 0004$ long. Closely resembling the last, but with different fruit.

869. **Valsa castanicola.** *B. & C.*—Parva sudepressa, ascis subclavatis; sporidiis biseriatis cymbæformibus, triseptatis, septis verticaliter divisis.

On small twigs of *Castanea*. Virginian Mountains.

Pustules small, rather flat; ostiola not prominent; asci slightly clavate; sporidia biseriate; sporidia cymbæform, pointed, triseptate, at length vertically divided, $\cdot 0004$ long.

* **Valsa pini.** *Fr.*—New England, Sprague. No. 5296, 5427. Sporidia sausage-shaped, $\cdot 0046$ long.

* **Valsa vitis.** *Schwein.*—Car. Inf. No. 2135. Car. Sup. No. 628, 3706. Pennsylvania, Michener. No. 4238. Sporidia sausage-shaped, $\cdot 0006$ long.

* **Valsa stilbostoma.** *Fr.*—Car. Inf. On *Acer*. On *Melia*. Ravenel. No. 557.

* **Valsa salicina.** *Fr.*—Car. Sup. No. 4. New England, Russell. No. 5039, 5955, 3494.

I cannot distinguish No. 4209. Pennsylvania, Michener, on *Viburnum dentatum*. Car. Inf. on *Liquidambar*. No. 2072. All these agree as to the sporidia with *Scl. Myc.* No. 10, 0006-0007. On *Platanus*. New England, Sprague. No. 6321. The sporidia are $\cdot 001$. In *Syringa*, Pennsylvania, Michener, No. 4086, they are $\cdot 0006$.

Valsa ambiens. *P.*—On apple. Pennsylvania, Michener. No. 3980, 4089, 4095, 4118. New York, Sartwell. On *Prunus*. No. 2627, 2628.

* **Valsa suffusa.** *Fr.*—New Jersey. No. 4635.

870. **Valsa fulvella.** *B. & Rav.*—Pustulis cortice arcte inclusis, disco fulvello ostiolis nigris punctato; sporidiis allantoides.

On *Platanus occidentalis*. Car. Inf. Ravenel. No. 1825.

Pustules closely covered by the bark, which is raised up, disc pale-tawny, dotted with the black ostiola; sporidia sausage-shaped.

871. **Valsa corynostoma.** *B. & Rav.*—Pustulis cortice abditis; ostiolis clavatis, sporidiis allantoides.

On *Acer rubrum*. Car. Inf. Ravenel. No. 1587.

Pustules small, scarcely raising the bark; ostiola fasciculate, club-shaped; sporidia minute, sausage-shaped.

872. **Valsa caryigena.** *B. & C.*—Pustulis seriatis; ostiolis maticis alba intermixtis; sporidiis allantoideis.

On branches of *Carya*. Pennsylvania, Michener. No. 5150.

Pustules small, in rows, covered below with the smooth bark, disc white, studded with the black ostiola; sporidia sausage-shaped, .0004 long.

873. **Valsa Americana.** *B. & C.*—Pustulis epidermide tectis, ostiolis congestis necs tellatis; ascis clavatis; sporidiis allantoideis.

On branches of various trees from various parts of the United States; almost as common as *Valsa stellulata*. It has the appearance of *V. stilbostoma*, but the sporidia are quite different.

874. **Valsa innata.** *B. & C.*—Pustulis subcorticalibus planis; ostiolis disco elevato brevi abditis; ascis filiformibus; sporidiis oblongis.

On *Castanea vesca*. Mountains of New York.

Perithecia forming a flat annular ring round the raised disc, within which the ostiola are concealed; asci filiform; sporidia in a single row, oblong, slightly narrowed either way from the centre, .0003 long.

875. **Valsa albo-velata.** *B. & C.*—Pustulis cortice tectis; disco albo; ostiolis nigris cylindricis punctato; ascis clavatis; sporidiis angustis fusiformibus quadrinucleatis.

On *Rhus copallina*. Car. Inf. No. 1885, 2479.

Pustules hid by the bark; disc white, pierced by the cylindrical ostiola; asci clavate; sporidia biseriate, fusiform, or narrowly cymbiform, with four nuclei. The specimens are accompanied by an *Helminthosporium*, with short fusiform, triseptate spores.

* **Valso pulchella.** *Fr.*—Car. Sup. No. 310. Car. Inf. No. 1545, 1890. On peach.

876. **Valsa gemmata.** *B. & C.*—Peritheciis paucis, collis una erumpentibus apice stellatis; sporidiis fusiformibus brevibus 3-septatis.

On *Rhus radicans*. Car. Inf. No. 3046.

Perithecia few, circinating; necks united; ostiola stellate; sporidia shortly fusiforms, triseptate.

877. **Valsa tribulosa.** *B. & C.*—Peritheciis paucis, collis spiculis; sporidiis fusiformibus 3-septatis.

On alder. Car. Inf. No. 5003.

Perithecia few; necks subcylindrical, projecting; sporidia fusiform, triseptate, .0008 long.

878. **Valsa condensata.** *B. & C.*—Pustulis parvis; ostiolis brevibus; stromate fusco; sporidiis obovatis, 5-septatis, hic illic verticaliter devisis.

On *Quercus montana*. Virginian Mountains. No. 3364.

Pustules small; ostiola short; sporidia obovate, divided horizontally and vertically, .0008 long.

879. **Valsa mesoleuca.** *B. & C.*—Disco albo, ostiolis cincto vel consperso; sporidiis allantodeis hyalinis.

On *Viburnum dentatum*. Pennsylvania, Michener. No. 4207.

Disc white, surrounded by the black ostiola, or sometimes dotted; sporidia hyaline, sausage-shaped, .0008 long.

* **Valsa quaternata.** *Fr.*—On poplar and *Alnus serrulata*. Pennsylvania, Michener. No. 4102. 4229. Vermont, Rev. J. D. Russell. No. 5888.

Sporidia .0005 long.

* **Valsa aculeans.** *Schwein.*—On *Rhus typhina*. Massachusetts. No. 3376.

Sporidia fusiform, narrow, triseptate, .0006 long.

* **Melanconis chrysostroma.** *Tul.*—On *Quercus alba*. No. 2961.

* **Gibbera pulicaris.** *Fr.*—On *Zea*. Car. Sup. No. 301. On wheat. No. 897. Car. Inf. No. 3843, 2126, 2218. Ravenel. No. 1831. On *Hibiscus syriacus*. No. 2726. On *Brassica*. Car. Inf. No. 6017. On *Gourd*. Pennsylvania, Michener. No. 3821. On *Juglans nigra*. No. 3421.

* **Gibbera Saubinetii.** *Mont. & Dur.*—On *Zea*. Car. Inf. No. 1412, 1431. New England, Murray. No. 6282. Pennsylvania, Michener. On *Scirpus pungens*. No. 4381. On willow. No. 4372.

* **Dothidea graminis.** *Fr.*—Car. Sup. No. 370, 663, 746. Car. Inf. No. 3205, 3221. Ravenel. No. 1804. On *Scirpus*. New York, Sartwell. No. 3466.

Sporidia .0004 long.

* **Dothidia gangræna.** *Fr.*—On leaves of *Isolepis capillaris*. Car. Inf. No. 1653. Ravenel. No. 1657.

Sporidia narrow, as in *D. stenospora*, *B. & Br.*, Journ. Linn. Soc. xiv., p. 134.

Alabama, Beaumont. No. 4658. Sporidia .001 long.

* **Dothidea canaliculata.** *Schwein.*—On leaves of *Cyperus Baldwinii*. No. 1755.

* **Dothidea Trifolii.** *Fr.*—On leaves of clover. Pennsylvania, Michener. No. 3489. Canada, Poe. No. 6165.

880. **Dothidea perisporioides.** *B. & C.*—Superficialis reticulata nigra; ascis clavatis; sporidiis uniseptatis medio constrictis.

On leaves of *Rhynchosia monophylla*. Car. Inf. No. 1263. On *Indigofera Caroliniensis*. No. 1289. Ravenel.

Forming a net work on the upper surface of the leaves; asci clavate; sporidia biseriate, oblong, uniseptate, constricted at the septum, obtuse or slightly pointed at either end, .0012 long.

* **Dothidea Lespedezæ.** *Schwein.*—Car. Inf. Ravenel. No. 1977.

* **Dothidia anemones.** *Fr.*—On leaves of *Anemone Virginica*. Car. Sup. No. 744, 774.

* **Dothidea ribesia.** *Fr.*—Maine, Rev. J. Blake. No. 6302, 5296. New England, Sprague. No. 5309. Russell. No. 5950. Pennsylvania, Michener. No. 4071. Without fruit, I cannot distinguish. On honeysuckle. No. 4326. On *Maclura aurantiaca*. No. 6001. *Dothidea capreolata*, Schw. Car. Inf. No. 2685. On *Bignonia capneolata*.

881. **Dothidea Haydeni.** *B. & C.*—Irregularis papillata; sporidiis linearibus utrinque attenuatis.

On stems of *Aster* and *Erigeron*. Nebraska, Hayden. No. 6404.

Forming elongated, irregular, papillose patches; sporidia linear, attenuated at either end.

882. **Dothidea Coluteæ.** *B. & C.*—Pulvinata lævis, cellulis; stromate inclusis; ascis clavatis; sporidiis oblongis uniseptatis centro constricti.

On twigs of *Colutea*. Pennsylvania, Michener. No. 4072. 4250.

Pulvinate, even, containing several cells; asci clavate; sporidia oblong, uniseptate, constricted at the septum, .0005-.0008 long.

* **Dothidea culmicola.** *Schwein.*—On stalks of grass. Car. Inf. No. 4938. Canada, Poe. No. 5000.

* **Dothidea Berberidis.** *D. Not.*—Murray. No. 6242.

* **Dothidea Sambuci.** *Fr.*—On *Morus multicaulis*. Car. Inf. No. 2044. *Dothidea Missouriensis*, Schwein, Car. Inf., No. 2233, is not a fungus.

883. **Dothidea seminata.** *B. & Rav.*—Sparsa granulata centro demum punctata; sporidiis biseriatis, cymbæformibus uniseptatis.

On leaves of *Desmodium*. Ravenel. No. 1503.

Rather large, scattered, granulated, at length pierced in the centre; asci clavate; sporidia biseriate, cymbiform, narrow, uniseptate, .001 long, much narrower than in *D. perisporioides* or *D. grammodes*.

884. **Dothidea simillima.** *B. & Rav.*—Sparsa minor granulata; ascis angustis; sporidiis arcuatis utrinque attenuated.

On leaves of the same plant, and under the same number; scattered, smaller, granulated, asci narrow, sporidia hyaline, arcuate, suddenly attenuated at either end as in many *Vermiculariæ*, .0006 long. *Dothidea Desmodii*, Curt., on *D. lineatum*, is apparently the same.

* **Dothidea artemisiæ.** *Schwein.*—On *Artemisia abrotanum*. Pennsylvania, Michener. No. 4348.

Sporidia oblong, uniseptate, constricted at the septum, one division being smaller than the other, .001 long.

885. **Dothidea ambrosiæ.** *B. & C.*—Convexa nitida; ascis linearibus; sporidiis uniseriatis ellipticis hyalinis.

On leaves of *Ambrosia elatior*. *Car. Inf.* No. 1387. On *A. artemisiæfolia*. Alabama, Beaumont. No. 4668.

Convex, shining; asci linear; shorter than the slender paraphyses; sporidia uniseriate, elliptic, hyaline.

886. **Dothidea vorax.** *B. & C.*—Culmum circumdans congesta; ascis linearibus; sporidiis filiformibus.

On *Panicum*. *Car. Inf.* No. 1810. Ravenel. On *Uniola*.

Forming a black patch surrounding the stem, $\frac{1}{3}$ inch long; asci linear, sporidia filiform. Sometimes very irregular, and then *D. pilulæformis*, *B. & C.* *Car. Inf.* On *Uniola*. No. 1809. *D. atramentaria*, on the under side of grass leaves. *Car. Inf.* No. 1657, is probably a form.

887. **Dothidea eupatorii.** *B. & C.*—Erumpens; elongata irregularis, ascis brevibus.

On stems of *Eupatoria coronopifolia*. *Car. Sup.* No. 798.

Forming black, thin, irregular erumpent, granulated patches, an inch or more long; asci short, obovate.

888. **Dothidea picea.** *B. & C.*—Maculis minutis orbicularibus; ascis brevibus; sporidiis angustis cymbæformibus hyalinis.

On twigs of *Vitis æstivalis*.

Forming little orbicular papillose patches; asci short, clavate; sporidia hyaline, narrow, cymbæform.

* **Dothidea fructigena.** *Schwein.*—On apples, which have been lying out all the winter. *Car. Sup.* No. 336.

* **Dothidea Pteridis.** *Fr.*—Rhode Island. *Curtis. Car. Inf.* Ravenel. No. 1744.

* **Dothidea alnea.** *Fr.*—On *Alnus serrulata*. Pennsylvania, Michener. No. 3499.

Spores linear, .0004 long. Not a true *Dothidea*.

* **Dothidea geographica.** *Fr.*—On leaves of *Prunus serotina*. *Car. Inf.* No. 2142. Ravenel. On *Nyssa*. No. 3218.

* **Dothidea phytolacæ.** *Schwein.*—Alabama, Peters. No. 546.

* **Dothidea lineola.** *Schwein.*—On *Hemerocallis*. New England. Russell.

* **Dothidea heliopsidis.** *Schwein.*—On *Helianthus*. Missouri, Dr. Engelmann. No. 3680.

* **Dothidea Rhois.** *Schwein.*—On leaves of *Rhus copallina*. *Car. Inf.* No. 3173.

889. **Dothidea scutula.** *B. & C.*—Orbiculata applanata, cellulis plurimis globosis; ascis brevibus.

On the upper surface of leaves of *Laurus Caroliniensis*. *Car. Inf.* Ravenel. No. 478.

Orbicular, placentæform, containing numerous cells, asci oblong; sporidia immature.

* **Dothiora pyrenophora.** *Fr.*—On *Pyrus Americana*. Mountains. Car. Sup. No. 4463.

* **Sphæria corticium.** *Schwein.*—On oak. Car. Sup. No. 706. New York, Lévillé.

In original specimens sporidia cymbæform; .0011 long. In the Carolina specimens the byssus is not so red as in the original and Lévillé's specimens.

* **Sphæria aquila.** *Fr.*—Car. Sup. No. 107, 303. On ash. No. 769. Car. Inf. On oak. No. 6022. On *Cornus florida*. No. 4972. Ohio.

* **Sphæria Desmazierii.** *B. & Br.*—"Cooke Handb.," p. 854.

On birch. Maine, Rev. J. Blake. No. 6345. Pennsylvania, Michener. On *Cornus florida*. No. 4880.

* **Sphæria foveolata.** *B. & C.*—"Journ. Linn. Soc.," x., p. 387.

On prostrate branches. Car. Inf. Ravenel. No. 1358.

Sporidia shaped like seeds of a *Veronica*.

* **Sphæria acanthostroma.** *Mont.*—On *Acer*, oak and *Myrica cerifera*. Car. Inf. Ravenel. No. 1320, 1361, 1638, 1829. Pennsylvania, Michener.

* **Sphæria tristis.** *Tode.*—Car. Inf. No. 1599. New England. Sprague. No. 5843.

* **Sphæria phæstroma.** *M. & Dur.*—Car. Inf. No. 1569, 2797.

On *Ulmus Americana*. Ravenel. No. 1857. Sporidia triseptate, the two central articulations dark, .00125-.0016 long.

890. **Sphæria pezizula.** *B. & C.*—Peritheciis cupularibus in byssum floccosam nigram insidens; ascis clavatis; sporidiis oblongo-linearibus curvis pluriseptatis. Car. Inf. No. 1774. Ravenel. No. 1344. New Jersey. No. 4694.

Perithecia cup-shaped seated on a thin byssus; asci clavate; sporidia linear-oblong, about 7-septate. The New Jersey plant differs in having the sporidia clavate with about seven septa, .0013 long.

891. **Sphæria papilionacea.** *B. & C.*—Peritheciis minutis in byssum compactam tenuem insidentibus apice niveis.

On leaves apparently of some rosaceous plant. Car. Inf. No. 6381. Ravenel. No. 1927.

Perithecia minute, seated on a thin compact byssus, their tips white.

892. **Sphæria Russellii.** *B. & C.*—Peritheciis minutis demum collapsis in byssum compactam tenuem insidentibus.

On leaves of *Mespilus*. Massachusetts, Russell. No. 6399.

Perithecia minute, at length collapsed, seated on a thin byssus, consisting of intricate threads which cover the whole under surface

of the leaf. Unfortunately I cannot find perfect fruit in either of these species, which are very curious.

893. *Sphæria parietalis*. B. & C.—Peritheciis cupularibus in byssum parcam insidentibus; ascis clavatis; sporidiis biseriatis oblongis utrinque sub-attenuatis uniseptatis, medio constrictis.

On the inside of a hollow oak. Car. Inf. No. 2192.

Perithecia cup-shaped, seated on a sparing byssus; asci clavate; sporidia biseriate, oblong, slightly attenuated at either end, so as to be almost biconical, uniseptate, constricted at the septa.

894. *Sphæria pannicola*. B. & C.—Peritheciis globosis in stroma crassiusculum pilosum fuscum insidentibus; sporidiis oblongis arcuatis obtusis triseptatis.

On roots of birch. New Jersey. No. 4583.

Perithecia globose, seated on a rather thick brown pilose stratum consisting of straight acute threads; sporidia oblong, obtuse at either end, arcuate with three septa, .0008 long.

895. *Sphæria ranella*. B. & Rav.—Peritheciis globosis collapsis rugosis in stroma tenue insidentibus; sporidiis caudatis uniseptatis, sursum coloratis.

On *Platanus*. Car. Inf. Ravenel.

Perithecia globose, collapsing, rugged, seated on a brown stratum; sporidia of two joints, the upper elliptic or pointed dark, the low elongated and attenuated with several nuclei, .005 long or more.

896. *Sphæria xestothele*. B. & C.—Peritheciis congestis umbrino-lanatis, ostiolo nudo perforato, sporidiis fusiformibus uniseptatis.

On *Cornus florida*. Car. Inf. No. 4972.

Perithecia crowded, connected with brown woolly matter; ostiolum naked, perforated, tinged with rufous; sporidia biseriate, fusiform, uniseptate, .0008 long, hyaline.

* *Sphæria racodium*. Fr.—On *Liquidambar*. Car. Inf. No. 1466, 3247.

* *Sphæria ovina*. On dead wood. New Jersey. No. 4697.

Sporidia linear, sigmoid, .002 long.

* *Sphæria hispida*. Tode.—On *Juglans nigra*. Car. Sup. No. 858. Car. Inf. No. 2705.

* *Sphæria canescens*. P.—On *Platanus*. Car. Sup. No. 1782.

* *Sphæria strigosa*. A. & S.—On damp pine wood. Car. Inf. No. 1610.

* *Sphæria exilis*. A. & S.—Car. Sup. On *Prunus serotina*. No. 701. On *Quercus montana*. No. 928. Car. Inf. On *Cornus florida*. No. 2396, 2732. Ravenel. No. 1814.

* *Sphæria mutabilis*. P.—Pennsylvania, Michener. No. 4385.

* *Sphæria lignaria*. Grev.—Car. Inf. No. 1594, 1800, 2568. Virginian Mountains. No. 2348.

Sporidia elliptic, brown, .0004. This is quite distinct from *Sphæria hispida*.

* **Sphæria pilosa.** *P.*—*Car. Inf.* No. 1183. Under the shingles of a roof. On pine. *Car. Inf.* No. 2165, 2524.

* **Sphæria cladosporiosa.** *Schwein.*—On *Agaricus salignus*. Sartwell. No. 3076.

Not a true *Sphæria*, though it has much the appearance of one.

* **Sphæria vermicularia.** *Nees.*—*Car. Inf.* No. 1219.

897. **Sphæria orthotricha.** *B. & C.*—Peritheciis gregariis pilis longis rectis vestitis; sporidiis linearibus fuscis 6-septatis.

On decayed *Nyssa*. *Car. Inf.* No. 4927.

Perithecia gregarious, but scarcely crowded, clothed with long, straight, acute hairs; sporidia linear, with 6-septa, dark, .002-.0025 long, sometimes slightly curved.

898. **Sphæria lanuginosa.** *B. & C.*—Peritheciis globosis sursum leviter applanatis; basi lanuginosis; sporidiis uniseriatis subbiconicis.

On *Robinia*. *Car. Inf.* No. 2618.

Perithecia globose, slightly flattened above, lanuginous at the base; sporidia oblong, uniseptate, curved, sometimes pointed at either extremity, so as to be biconical.

899. **Sphæria ootheca.** *B. & C.*—Congregata globosa glabrescens nitida in maculam nigram insidens; ascis obovatis fartis.

On oak. No. 2110.

Perithecia crowded into little groups, globose, seated on a dark spot; asci obovate, stuffed with numerous sausage-shaped minute sporidia.

This is *Sphæria mucida* β . *rostellata*, *Schwein*, on *Rhus*, in whose specimen the asci are .001 long. In No. 2110 they are rather larger.

900. **Sphæria Berenice.** *B. & C.*—Minima undique villosa; ascis lanceolatis; sporidiis hyalinis oblongis utrinque leviter attenuatis.

On the under side of leaves of *Magnolia macrophylla*.

Minute, ovate, clothed all over with radiant flocci; asci lanceolate; sporidia hyaline, oblong, slightly attenuated at either end, or subcymbiform.

901. **Sphæria flavido-compta.** *B. & C.*—Peritheciis ovatis pilis rigidis flavis ornatis; sporidiis oblongo-ellipticis triseptatis.

On *Cyrilla*. *Car. Inf.* No. 5021.

Perithecia ovate, black, clothed with rigid yellow hairs; sporidia oblong, elliptic, triseptate, .0003-.001 long.

902. **Sphæria cerea.** *B. & C.*—Minuta parasitica fulvella; ascis lanceolatis; sporidiis fusiformibus plurinucleatis.

Parasitic, on *Sphæria stigma*. *Car. Inf.* No. 2315.

Minute, globose, tawny; asci lanceolate; sporidia fusiform, with many nuclei, probably not mature.